

1.0 PROJECT OVERVIEW

1.1 PROPONENT - AMENDED PROJECT

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1.2 PROJECT SETTING

1.2.1 Location

The project site is located in the nearshore State tidelands area directly offshore of Ventura County and within the sphere of influence of the city of Oxnard in southwestern Ventura County. The project site is situated immediately seaward of the mean low low water (MLLW) line at Mandalay Beach, about 3 miles north of Channel Islands Harbor and 2.5 miles south of the Ventura Harbor. The most prominent natural feature within the vicinity of the project site is the Santa Clara River mouth, which is located directly south of the Ventura Harbor, about 2 miles north of the project area (see Figure 1-1 - Site Location Map and Figure 1-2 - Aerial Photographs of Project Area). The Oxnard-Ventura Greenbelt, which encompasses 4,600 acres in the cities of Oxnard and Ventura, includes most of the agricultural land between the Santa Clara River and the project site and is the defining characteristic of the western-portion of the city of Oxnard (Impact Sciences, 1998).

The adjacent onshore area is a south-facing coastal dune area, which spans from the Santa Clara River mouth south to the community of Oxnard Shores and Channel Islands Harbor (see Figure 1-1 - Project Site Location Map). Surrounding land uses consist primarily of coastal energy facilities, such as the Reliant Energy Mandalay L.L.C. Generating Station (REM) and the Torch Mandalay Oil Processing Facility. The project site is located directly seaward (west) of the REM which is bound to the east by Harbor Boulevard. The McGrath State Park and McGrath Lake are located north of the REM. South of the project area exists an open space dune habitat area frequently visited by the public and residents of the nearby Oxnard Shores coastal community. The following Table 1.2-1 provides an overview of site-specific information.

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Figure 1-1 - Project Site Location Map

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Figure 1-2 - Aerial Photograph of Project Area

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Table 1.2-1. Site Information

Coastal Zoning Ordinance	214-foot pipeline segment occupies a portion of State Lease PRC 2180.1 Adjacent properties are zoned EC, Coastal Energy Facilities, RC, Coastal Recreation
Site Size	214-foot long pipeline corridor within the active surf zone of nearshore marine environment
Present Use & Development	Reliant Energy Mandalay Generating Station and Edison Marine Terminal
Surrounding Uses/Zoning	North: McGrath State Beach, McGrath Lake / RP, Coastal Resource Protection South: Torch Oil Processing Facility / EC, Coastal Energy Facilities, and Mandalay State Beach Park / RC, Coastal Recreation and RP, Coastal Resource Protection East: Harbor Boulevard and Oil Field Facilities / EC, Coastal Energy Facilities, Agricultural production West: Pacific Ocean / Coastal Zone / RC, Coastal Recreation
Access	Via Harbor Boulevard in Oxnard (Mandalay Generating Station located at 393 N. Harbor Boulevard) *Specifically, access to the 214-foot pipeline segment is only through Mandalay Beach during a low tide event, or via watercraft.

1.2.2 Agency Jurisdiction

The following lists regulatory agencies with jurisdiction over the proposed amended project:

California State Lands Commission - The California Environmental Quality Act (CEQA) applies to discretionary government actions that are defined as a project and have the potential to result in either a direct or indirect physical change in the environment. An activity is considered a project if it requires issuance of a lease, permit, license, certificate, or other entitlement by a public agency. The CEQA lead agency is the California government agency that has the principal responsibility of approving a project and preparing the appropriate CEQA documentation. The California State Lands Commission (CSLC) is designated as the CEQA lead agency for of this amended project by virtue of its discretionary authority to amend its land lease.

City of Oxnard - The subsurface pipeline corridor is located in the Appeals Zone of the city of Oxnard adopted Local Coastal Program (LCP). As such, the city of Oxnard retains appeal authority over the proposed project.

California Coastal Commission – The pipeline segment is located within the coastal zone, and is therefore under the jurisdiction of the California Coastal Commission (CCC). However, the CCC has determined an amended permit will not be required for the proposed project.

1.3 PROJECT BACKGROUND

1.3.1 Purpose and Need

Southern California Edison (SCE) proposed to amend its approved Mandalay Marine Terminal Decommissioning Program (Program), which was analyzed in a Negative Declaration adopted by the CSLC on March 25, 2002 to address the issue of a 214-foot segment of the 24-

inch diameter subsurface pipeline that remains in the active surf zone of the nearshore marine environment. SCE was unable to meet the original project objective of completely removing the marine fuel oil pipeline, and seeks to amend its Program to allow such pipeline to remain in-place. Addressing the presence of the 214-foot nearshore pipeline section represents the final phase of the Mandalay Marine Terminal Decommissioning Program and it is the intent of SCE to file a quit claim to the existing CSLC lease if the proposed project is approved.

1.3.2 History of the Mandalay Marine Terminal and Decommissioning Program

1.3.2.1 Marine Terminal Idling and Anchor Berth Decommissioning

The REM facility was originally constructed to operate on fuel oil. As such, the Mandalay Marine Terminal submarine pipeline was constructed by SCE in 1958 to off-load fuel oil from marine tankers. Fuel oil was piped onshore to several storage tanks located within the southeastern portion of the REM facility. The submarine pipeline consisted of a 24-inch diameter, welded marine pipeline extending approximately 4,950 feet offshore.

Records indicate that the last tanker off-loading of fuel oil was conducted on February 21, 1991, and the marine terminal was placed under caretaker status in February 1993. As part of the process of idling the marine terminal, the ship-mooring buoys and anchor chains associated with the seven-point mooring system were removed in 1992. All the anchor chains were pulled taut to the mudline of a barge deck and cut. Only one of the 10-ton stockless anchors was removed during this process (Anchor #6), due to unsafe sea conditions. During the same operation, the subsea hose attached at the end of the pipeline was removed and the 24-inch diameter line was capped with a blanking flange.

Subsequently, the capped pipeline was hydrotested to 250 pounds per square inch gauge (psig). The pipeline was then flushed with seawater and freshwater to remove residual hydrocarbons that may have been present inside the pipeline. Ultimately, the pipeline was flooded with a mixture of approximately 107,000 gallons of freshwater and approximately 20 to 55 gallons of an anti-corrosive solution consisting of an oxygen scavenger (catalyzed sodium bisulfite), and a biocide (an aqueous solution of metronidazole, dimethylformamide, and isopropanol).

During the August 2000 anchor location and recovery operations conducted at the site, four of the remaining six anchors were recovered. Anchor #4 and Anchor #1 were determined to be buried in excess of 12 feet beneath the seafloor and were approved to be abandoned in place.

1.3.2.2 Decommissioning of the Pipeline and Associated Onshore Facilities

The following text provides a brief summary of work activities completed to date on the marine terminal decommissioning. Representative photographs taken during the decommissioning work activities are included as Appendix A.

SCE received notice from the California Independent System Operator (ISO) Board in 2001 that it was no longer necessary to maintain a back-up fuel supply at the REM facility. Therefore, SCE decided to decommission its existing Mandalay Marine Terminal facility, including the entire 4,950-foot submarine pipeline to its offshore terminus, associated onshore valve boxes, equipment, and miscellaneous piping.

Following receipt of all necessary agency permits and approvals (March 26, 2002), SCE initiated the Mandalay Marine Terminal Decommissioning Program. SCE conducted work for the Mandalay Marine Terminal Decommissioning Program from April through July 2002, and successfully removed approximately 4,736 feet of the 24-inch diameter marine fuel oil pipeline, as well as the valve boxes and ancillary equipment. As originally proposed in the approved Work Execution Plan, (Associated Pacific Constructors, Inc., 2002) the nearshore pipeline segment removal focused on attempts to pull the segment to shore utilizing vibratory extraction methods. Three attempts were made to remove a 214-foot segment without success and resulted in either the failure of the pipeline, breaking a pulling cable, and breaking the vibratory extractor itself.

After these unsuccessful vibratory attempts, a decision was made to continue removing as much pipe as possible from the onshore and offshore pipeline ends using conventional excavation and removal methodology. A derrick barge utilizing a high-volume jet pump was used to remove sediment overburden from the pipeline during marine operations. A diver was subsequently used to cut exposed pipeline sections with underwater oxy-arc cutting equipment and installation of rigging for recovery by the derrick barge crane. This offshore removal procedure was repeated until the derrick barge was unable to move further inshore due to shallow water depths (approximately 5-6 feet). This shallow water depth occurs at a distance of approximately 883 feet west (offshore) of the concrete valve box during a high tide. According to field observations, the pipeline is buried approximately 15 feet deep in an area of considerable sand with underlying cobble at this water depth.

The onshore removal methodology focused on uncovering the pipeline with excavators and cutting sections (approximately 40 feet in length) with oxy-acetylene cutting equipment. A crane was then used to lift cut pipeline sections onto a flatbed trailer that was transported to the designated staging area within the REM facility. This procedure was repeated proceeding westward until no further movement of the pipeline could be achieved with the use of excavators.

Specifically, two excavators were utilized to expose and attempt to lift the pipeline end. During this attempt, the pipeline end collapsed on itself (hinged) and failed in a folding motion. Repeated attempts with a combined 53-ton pulling force applied by two excavators resulted in no further observed movement of the pipeline. The pipeline appeared to be anchored. The exposed pipeline section was cut off at burial depth and removed at a distance of approximately 669 feet west from the concrete valve box. Based on the inability of the derrick barge to move any closer inshore and the infeasibility of the onshore crew to proceed any further offshore, pipeline removal operations were suspended pending a project evaluation by SCE.

1.3.2.3 Post-Decommissioning Nearshore Pipeline Survey

In July of 2002, surveys were conducted by Fugro West, Inc. of the 214-foot pipeline segment during (July 12, 2002), and at the completion (July 29, 2002) of pipeline removal activities. The intent of these surveys was to accurately establish the physical parameters of the nearshore pipeline segment so that potential alternatives and revised engineering calculations could be further evaluated. Figure 1-3 shows the length and position of the 214 feet of pipeline segment and surrounding natural bottom indicated within these surveys. Based on these surveys and field observations, it is estimated that the pipeline segment has a current burial depth of approximately 15 feet, in an area of considerable sand with underlying cobbles approximately 2 feet deep.

1.3.2.4 Pipeline Condition Investigation

Due to the field conditions found at the site and the apparent weight of the pipeline, the SCE project team conducted a more detailed investigation of past pipeline exposures and related activities.

a. Interview with Former Facilities Engineer. An interview with a retired SCE facilities engineer, as well as photodocumentation (see Figure 1-4, Photograph A) indicates a 1968 pipeline exposure. This exposure occurred during a severe El Nino related weather event that created heavy surf conditions which unearthed the pipeline. During this exposure, remedial action was taken in order to prevent damage to the pipeline and a potential release from occurring. Based on the interview, during minus tide conditions, a sand road was established paralleling the pipeline. Cobble around the pipeline was excavated to form a trench and, using approximately 22 concrete trucks, concrete was added to encase the pipeline. An estimated 198 cubic yards of concrete was added to the pipeline over an approximately 100 foot area resulting in an estimated 14 cubic feet of concrete cover per foot of pipeline.

b. Site Conditions Reconnaissance. A site reconnaissance of current site conditions during two low-tide events was conducted by Padre (1/10/03) and SCE (1/31/03). During these visits, representative photographs (See Figure 1-4, Photograph B) and video was taken to document site observations along the former pipeline corridor and nearshore segment. Based on the conditions observed, the pipeline segment is still located in an area of cobble fines, and even during minus tides, is not exposed.

Insert Figure 1-3 July 2002 Fugro Survey

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Insert Figure 1-4 Pipeline Exposure and Current Site Conditions Photographs

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c. Depositional Study. Previous geophysical surveys completed at the project site in March of 2000 (Ecosystems Management, 2000) indicate that the Mandalay Beach area is known for strong nearshore currents and significant nearshore sand movement. Net littoral sediment transport is downcoast in amounts of 800,000 to 1,200,000 cubic yards. The origin of this southerly migrating sand is attributed to the Ventura Marine breakwater and jetties, as well as large amounts of sediment being transported from the Santa Clara River, two miles upcoast.

A study of nearshore oceanographic conditions and processes influencing the site was completed by Coastal Environments on behalf of SCE in May of 2000 (see Appendix B – Evaluation of Nearshore Bathymetry). A depositional study of longshore littoral currents was conducted which concluded that, historically, winter storm events have caused significant damage and widespread erosion in the Mandalay area since the 1930s (as witnessed in the 1968 storm event that originally unearthed the pipeline). However, this report concludes that the quantities of sand being transported to Mandalay Beach almost exactly balance the longshore movement and ultimate losses from the site resulting in a seasonal balance of sand cover in the active surf zone/nearshore area.

The evaluation also states that seasonal and inter-annual fluctuations in the Mandalay Beach MLLW shoreline position can exceed 200 feet in the vicinity of the pipeline alignment. In addition, the long-term trend of the shoreline position at Mandalay Beach has been one of slight erosion from 1933 to 1977 and one of stability or modest advancement since 1987. This fluctuation is related to variation in river discharge sand quantities due to wet and dry time periods. Although the winter profile bar in the area can experience changes due to winter storms, elevation changes in the offshore portion of the profile at water depths of 30 feet or greater are found to be small. Bathymetry changes over the past 67 years (1933 to 2000) at the offshore area, beyond 1700-1800 ft (548 m) from the shoreline, were approximately +/- 2 feet.

d. Historic Aerial Photograph Analysis. Upon evaluation of historic aerial photographs (See Figure 1-5), it appears that shoreline conditions have remained consistent, in terms of sand cover, over the past 50 years.

1.4 ATTRIBUTES OF THE NEARSHORE PIPELINE SEGMENT

The 214-foot pipeline segment is comprised of 24-inch diameter API 5L, Grade B, seamless steel line pipe with a 0.5-inch wall thickness. The pipeline has a 2- to 3-inch thick exterior reinforced gunite weight coating, and is covered by a cement cap that was previously added during repair activities conducted at the site to remediate a 1968 pipeline exposure (see Figure 1-4, Photograph A). Attempts to remove the entire length of pipeline as originally proposed were unsuccessful because of the presence of this concrete cap, as well as deep burial depths encountered in the nearshore area. The following Sections (1.4.1 through 1.4.3) present additional details regarding the location, burial depths, concrete encasement, and interior of the 214-foot pipeline segment.

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INSERT FIGURE 1-5 HISTORIC AERIAL PHOTOGRAPH COMPARISON

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1.4.1 Pipeline Location and Burial Depths

The pipeline segment is located within the active surf zone at a distance of 669 feet to 883 feet west of the former onshore pipeline termination within the REM facility (see Figure 1-3) and is currently buried beneath approximately 15 feet of sandy sediments in an area with underlying cobble. Due to its nearshore position within the active surf zone, water depths above the pipeline segment vary with tidal fluctuations. During marine-based decommissioning operations, it was observed that the offshore termination of the 214-foot nearshore pipeline was located in water depths of approximately 5-6 feet during an average high tide event. Comparatively, the onshore termination of the nearshore pipeline segment could only be reached by terrestrial equipment during -1.0 tides or lower.

1.4.2 Concrete Encasement

The concrete encasement added during the 1968 remedial activities (See Section 1.3.2.4a) has resulted in significant pipeline stability as observed during previous unsuccessful attempts to remove this segment of pipeline. Specifically, two excavators were utilized to expose and attempt to lift the onshore pipeline end. During this attempt, the pipeline end hinged and failed in a folding motion. Repeated attempts with a combined 53-ton pulling force applied by two excavators resulted in no further observed movement of the pipeline. At the conclusion of pipeline removal operations, both ends of the pipeline segment were left open to allow sand to fill the pipeline void, thereby further increasing pipeline stability.

1.4.3 Pipeline Interior

A pipeline pigging and flushing component was incorporated into the Program to further reduce concentrations of residual hydrocarbons present in the pipeline interior prior to removal activities. The pipeline pigging and flushing operations generated a total of approximately 180,000 gallons of flushwater and reduced total petroleum hydrocarbon (TPH) concentrations in the pipeline interior to a residual concentration of 11.83 parts per million (ppm) which is less than the CSLC and U.S. Coast Guard required threshold of 15 ppm. No oil or sheen was observed during pipeline removal activities.

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